

# Managing Water Resources in California

Francis Chung, Ph.D. ,P.E.  
California Department of Water  
Resources

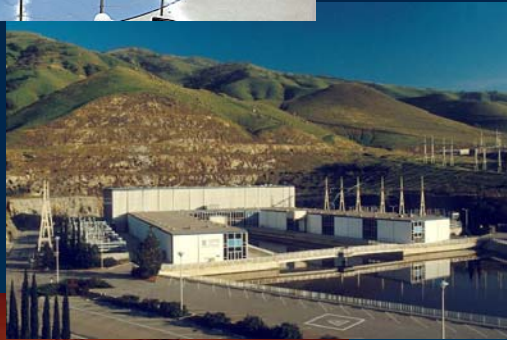
The background of the slide is a solid dark blue. In the lower right quadrant, there are several concentric, light blue circular ripples, resembling water droplets hitting a surface. These ripples are of varying sizes and are positioned in the bottom right corner of the slide.

# Climate Change Impacts on California's Water Resources



- **Reduced snowpack**
- **Earlier snowmelt results in increased flood control demand on reservoir space**
- **Higher water temperatures impacts ecosystem**
- **Sea level rise impacts the Delta, threatens levees and increases salinity**
- **Increased demand in all sectors**

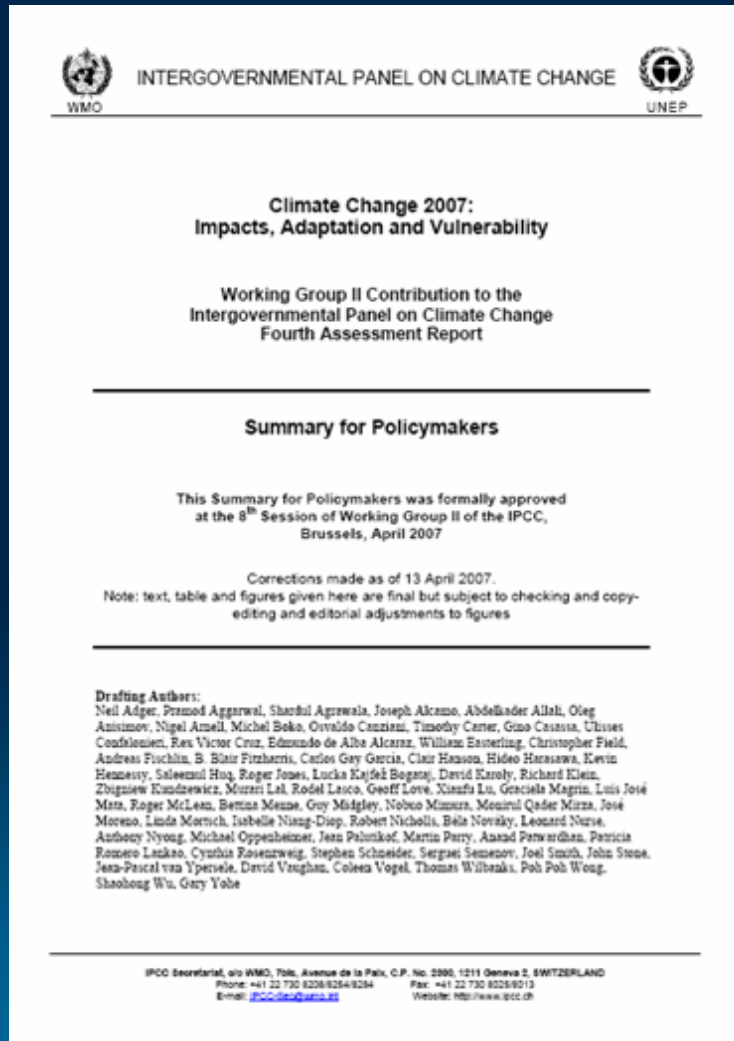
# Water, Energy and Climate Change



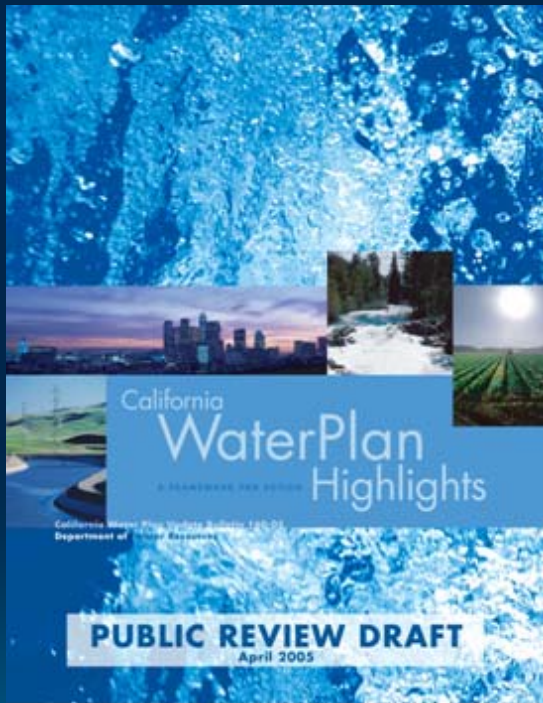
Future water management activities must carefully consider strategies to reduce greenhouse gas emissions

# New IPCC Findings

- Confirms impacts we are already witnessing
- Emphasizes the importance of adaptation
- Impacts dependent upon both climate change and adaptive capacity
- Recommends a portfolio approach



# Framework for Action Sustainable & Reliable Water in 2030



*Climate change is the sole focus of one of the 14 major recommendations*



# Resource Management Strategies

## Reduce Water Demand

- Agricultural Water Use Efficiency
- Urban Water Use Efficiency

## Improve Operational Efficiency & Transfers

- Conveyance
- System Reoperation
- Water Transfers

## Increase Water Supply

- Conjunctive Management & Groundwater Storage
- Desalination –Brackish & Seawater
- Precipitation Enhancement
- Recycled Municipal Water
- Surface Storage – CALFED
- Surface Storage - Regional/Local

## Improve Water Quality

- Drinking Water Treatment and Distribution
- Groundwater/Aquifer Remediation
- Matching Quality to Use
- Pollution Prevention
- Urban Runoff Management

## Practice Resource Stewardship

- Agricultural Lands Stewardship
- Economic Incentives (Loans, Grants, and Water Pricing)
- Ecosystem Restoration
- Floodplain Management
- Recharge Areas Protection
- Urban Land Use Management
- Water-Dependent Recreation
- Watershed Management

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# California Water Management and Climate Change

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- Climate change presents significant challenges for the management of California's water resources.
- Climate change is occurring incrementally and will likely continue to do so based on historical records over the past 100 years and most projections.
- California's water management systems already provide a some degree of operational flexibility.
- We should have time to plan for future climate change and adapt to it.
- Bond funding